Amendments In the Claims

Please amend Claim 39 as follows:

1. (Original) A method for determining buffer status, said method comprising: keying a buffer status to a transport gap other than a standard SONET transport gap.

2. (Previously Presented) The method of Claim 1, wherein said keying a buffer status to a transport gap other than a standard SONET transport gap further comprises:
keying a transmit buffer status of a transmit buffer to a transport gap other than the standard SONET transport gap.

3. (Original) The method of Claim 2, wherein said keying a transmit buffer status to a transport gap other than the standard SONET transport gap further comprises:
the transmit buffer interposed between a pointer interpreter which receives data from a switching matrix and a pointer generator which prepares a standard SONET STS-N frame.

4. (Previously Presented) The method of Claim 2, wherein said keying a transmit buffer status to a transport gap other than the standard SONET transport gap further comprises:
keying the transmit buffer status to at least a column length of a non-standard SONET transport gap.

5. (Original) The method of Claim 4, wherein each column of the non-standard SONET transport gap contains 1 byte per each STS channel in use.

6. (Original) The method of Claim 4, wherein said keying the transmit buffer to at least a column length of a non-standard SONET transport gap further comprises:
keying a pointer generator constructed to read data from the transmit buffer to at least a column length of a non-standard SONET transport gap.

7. (Original) The method of Claim 6, wherein said keying a pointer generator constructed to read data from the transmit buffer to at least a column length of a non-standard SONET transport gap further comprises:

accepting input specifying a substantially 28-column almost-empty range for the pointer generator reading data constructed to read data from the transmit buffer.

8. (Previously Presented) The method of Claim 4, wherein said keying the transmit buffer status to at least a column length of a non-standard SONET transport gap further comprises:

keying a pointer interpreter constructed to write data to the transmit buffer to at least a column length of a non-standard SONET transport gap.

9. (Original) The method of Claim 8, wherein said keying a pointer generator constructed to write data to the transmit buffer to at least a column length of a non-standard SONET transport gap further comprises:

accepting input specifying a substantially 5-column almost-full range for the pointer interpreter constructed to write data to the transmit buffer.

10. (Original) The method of Claim 1, wherein said keying a buffer status to a transport gap other than a standard SONET transport gap further comprises:

keying a receive buffer status to a transport gap other than the standard SONET transport gap.

11. (Original) The method of Claim 10, wherein said keying a receive buffer status to a transport gap other than the standard SONET transport gap further comprises:

the receive buffer interposed between a pointer generator which feeds data to a switching matrix and a pointer interpreter which receives data.

12. (Previously Presented) The method of Claim 10, wherein said keying a receive buffer status to a transport gap other than the standard SONET transport gap further comprises:

keying the receive buffer status to at least a column length of a non-standard SONET transport gap.

13. (Original) The method of Claim 12, wherein each column of the non-standard SONET transport gap contains 1 byte per each STS channel in use.

14. (Previously Presented) The method of Claim 12, wherein said keying the receive buffer status to at least a column length of a non-standard SONET transport gap further comprises:

keying a pointer generator constructed to read data from the receive buffer to at least a column length of a non-standard SONET transport gap.

15. (Previously Presented) The method of Claim 14, wherein said keying a pointer generator constructed to read data from the receive buffer to at least a column length of a non-standard SONET transport gap further comprises:

accepting input specifying a substantially 5-column almost-empty range for the pointer generator constructed to read data from the receive buffer.

16. (Original) The method of Claim 12, wherein said keying the receive buffer to at least a column length of a non-standard SONET transport gap further comprises:

keying a pointer interpreter constructed to write data to the receive buffer to at least a column length of a non-standard SONET transport gap.

17. (Original) The method of Claim 16, wherein said keying the receive buffer to at least a column length of a non-standard SONET transport gap further comprises:

accepting input specifying a substantially 28-column almost-full range for the pointer interpreter constructed to write data to the receive buffer.

18. (Original) A system for determining buffer status, said system comprising:

means for keying a buffer status to a transport gap other than a standard SONET transport gap.

19. (Original) The system of Claim 18, wherein said means for keying a buffer status to a transport gap other than a standard SONET transport gap further comprises:

means for keying a transmit buffer status to a transport gap other than the standard SONET transport gap.

20. (Original) The system of Claim 19, wherein said means for keying a transmit buffer status to a transport gap other than the standard SONET transport gap further comprises:

the transmit buffer interposed between a pointer interpreter which receives data from a switching matrix and a pointer generator which prepares a standard SONET STS-N frame.

21. (Previously Presented) The system of Claim 19, wherein said means for keying a transmit buffer status to a transport gap other than the standard SONET transport gap further comprises:

means for keying the transmit buffer status to at least a column length of a non-standard SONET transport gap.

22. (Original) The system of Claim 21, wherein each column of the non-standard SONET transport gap contains 1 byte per each STS channel in use.

23. (Previously Presented) The system of Claim 21, wherein said means for keying the transmit buffer status to at least a column length of a non-standard SONET transport gap further comprises:

means for keying a pointer generator constructed to read data from the transmit buffer to at least a column length of a non-standard SONET transport gap.

24. (Previously Presented) The system of Claim 21, wherein said means for keying the transmit buffer status to at least a column length of a non-standard SONET transport gap further comprises:

means for keying a pointer interpreter constructed to write data to the transmit buffer to at least a column length of a non-standard SONET transport gap.

25. (Original) The system of Claim 18, wherein said means for keying a buffer status to a transport gap other than a standard SONET transport gap further comprises:

means for keying a receive buffer status to a transport gap other than the standard SONET transport gap.

26. (Original) The system of Claim 25, wherein said means for keying a receive buffer status to a transport gap other than the standard SONET transport gap further comprises:

the receive buffer interposed between a pointer generator which feeds data to a switching matrix and a pointer interpreter which receives data.

27. (Previously Presented) The system of Claim 25, wherein said means for keying a receive buffer status to a transport gap other than the standard SONET transport gap further comprises:

means for keying the receive buffer status to at least a column length of a non-standard SONET transport gap.

28. (Original) The system of Claim 27, wherein each column of the non-standard SONET transport gap contains 1 byte per each STS channel in use.

29. (Previously Presented) The system of Claim 27, wherein said means for keying the receive buffer status to at least a column length of a non-standard SONET transport gap further comprises:

means for keying a pointer generator constructed to read data from the receive buffer to at least a column length of a non-standard SONET transport gap.

30. (Previously Presented) The system of Claim 27, wherein said means for keying the receive buffer status to at least a column length of a non-standard SONET transport gap further comprises:

means for keying a pointer interpreter constructed to write data to the receive buffer to at least a column length of a non-standard SONET transport gap.

31. (Original) A SONET node comprising:

at least one pointer interpreter having an almost full buffer detector set substantially equal to a number of columns present in a non-standard SONET transport gap.

32. (Original) The SONET node of Claim 31, wherein the number of columns present in a non-standard SONET transport gap comprises 27 columns of data.

33. (Original) The SONET node of Claim 32, wherein each of the columns comprises at least one byte of data for each STS channel in use.

34. (Original) The SONET node of Claim 31, wherein the SONET node further comprises one or more components selected from the group comprising a processor, a memory device, a bus, and a communications device.

35. (Original) A SONET node comprising:

at least one pointer generator having an almost empty buffer detector set substantially equal to a number of columns present in a non-standard SONET transport gap.

36. (Original) The SONET node of Claim 35, wherein the number of columns present in a non-standard SONET transport gap comprises 27 columns of data.

37. (Original) The SONET node of Claim 36, wherein each of the columns comprises at least one byte of data for each STS channel in use.

38. (Original) The SONET node of Claim 35, wherein the SONET node further comprises one or more components selected from the group comprising a processor, a memory device, a bus, and a communications device.

39. (Currently Amended) A method for maintaining communications comprising:

detecting a transition involving at least one **non-standard** SONET frame;

in response to said detecting yielding a determination that a receive FIFO buffer is almost full during the transition involving at least one **non-standard** SONET frame, engaging in negative stuffing; and

in response to said detecting yielding a determination that a receive FIFO buffer is almost empty during the transition involving at least one **non-standard** SONET frame, engaging in positive stuffing.

40. (Original) The method of Claim 39, wherein the determination that a receive buffer is almost full comprises detecting that the receive buffer has less empty space than that required to buffer data during construction of a non-standard transport gap.

41. (Original) The method of Claim 40, wherein said detecting that the receive buffer has less empty space than that required to buffer data during construction of a non-standard transport gap further comprises detecting that the receive buffer has space less than or equal to twenty-eight columns of data when the non-standard transport gap is twenty-seven columns of data in size.

42. (Previously Presented) The method of Claim 39, wherein the determination that a receive buffer is almost empty comprises detecting that the receive buffer has less full space than that required to ensure a constant outflow of data from the receive buffer during interpretation of a standard transport gap.

43. (Previously Presented) The method of Claim 42, wherein said detecting that the receive buffer has less full space than that required to ensure a constant outflow of data from the receive buffer during interpretation of a standard transport gap further comprises detecting that the receive buffer has space less than or equal to five columns of data when the standard transport gap is three columns of data in size.

44. (Previously Presented) A system for maintaining communications comprising:

means for detecting a transition involving at least one SONET frame;

means, responsive to said means for detecting yielding a determination that a receive FIFO buffer is almost full during the transition involving at least one SONET frame, for engaging in negative stuffing; and

means, responsive to said means for detecting yielding a determination that a receive FIFO buffer is almost empty during the transition involving at least one SONET frame, for engaging in positive stuffing.

45. (Previously Presented) The system of Claim 44, wherein said means, responsive to said means for detecting yielding a determination that a receive FIFO buffer is almost full during the transition involving at least one SONET frame, for engaging in negative stuffing further comprises:

means for detecting that the receive FIFO buffer has less empty space than that required to buffer data during construction of a non-standard transport gap.

46. (Previously Presented) The system of Claim 45, wherein said means for detecting that the receive FIFO buffer has less empty space than that required to buffer data during construction of a non-standard transport gap further comprises:

means for detecting that the receive FIFO buffer has space less than or equal to twenty-eight columns of data when the non-standard transport gap is twenty-seven columns of data in size.

47. (Previously Presented) The system of Claim 44, wherein said means, responsive to said means for detecting yielding a determination that a receive FIFO buffer is almost empty during the transition involving at least one SONET frame, for engaging in positive stuffing further comprises:

means for detecting that the receive FIFO buffer has less full space than that required to ensure a constant outflow of data from the receive FIFO buffer during interpretation of a standard transport gap.

48. (Previously Presented) The system of Claim 47, wherein said means for detecting that the receive FIFO buffer has less full space than that required to ensure a constant outflow of data from the receive FIFO buffer during interpretation of a standard transport gap further comprises:

means for detecting that the receive FIFO buffer has space less than or equal to five columns of data when the standard transport gap is three columns of data in size.

49. (Previously Presented) A method for maintaining communications comprising:

detecting a transition involving at least one SONET frame;

in response to said detecting yielding a determination that a transmit FIFO buffer is almost full during the transition involving at least one SONET frame, engaging in negative stuffing; and

in response to said detecting yielding a determination that a transmit FIFO buffer is almost empty during the transition involving at least one SONET frame, engaging in positive stuffing.

50. (Previously Presented) The method of Claim 49, wherein the determination that the transmit FIFO buffer is almost full comprises detecting that the transmit FIFO buffer has less empty space than that required to buffer data during construction of a standard transport gap.

51. (Previously Presented) The method of Claim 50, wherein said detecting that the transmit FIFO buffer has less empty space than that required to buffer data during construction of a standard transport gap further comprises detecting that the transmit FIFO buffer has space less than or equal to five columns of data when the standard transport gap is three columns of data in size.

52. (Previously Presented) The method of Claim 49, wherein the determination that the transmit FIFO buffer is almost empty comprises detecting that the transmit FIFO buffer has less empty space than that required to buffer data during interpretation of a non-standard transport gap.

53. (Previously Presented) The method of Claim 52, wherein said detecting that the transmit FIFO buffer has less empty space than that required to buffer data during interpretation of a non-standard transport gap further comprises detecting that the transmit FIFO buffer has space less than or equal to twenty-eight columns of data when the non-standard transport gap is twenty-seven columns of data in size.

54. (Previously Presented) A system for maintaining communications comprising:

means for detecting a transition involving at least one SONET frame;

means, responsive to said means for detecting yielding a determination that a transmit FIFO buffer is almost full during the transition involving at least one SONET frame, for engaging in negative stuffing; and

means, responsive to said means for detecting yielding a determination that a transmit FIFO buffer is almost empty during the transition involving at least one SONET frame, for engaging in positive stuffing.

55. (Previously Presented) The system of Claim 54, wherein said means, responsive to said means for detecting yielding a determination that a transmit FIFO buffer is almost full during the transition involving at least one SONET frame, for engaging in negative stuffing further comprises:

means for detecting that the transmit FIFO buffer has less empty space than that required to buffer data during construction of a standard transport gap.

56. (Previously Presented) The system of Claim 55, wherein said means for detecting that the transmit FIFO buffer has less empty space than that required to buffer data during construction of a standard transport gap further comprises:

means for detecting that the transmit FIFO buffer has space less than or equal to five columns of data when the standard transport gap is three columns of data in size.

57. (Previously Presented) The system of Claim 54, wherein said means, responsive to said means for detecting yielding a determination that a transmit FIFO buffer is almost empty during the transition involving at least one SONET frame, for engaging in positive stuffing further comprises:

means for detecting that the transmit FIFO buffer has less empty space than that required to buffer data during interpretation of a non-standard transport gap.

58. (Previously Presented) The system of Claim 57, wherein said means for detecting that the transmit FIFO buffer has less empty space than that required to buffer data during interpretation of a non-standard transport gap further comprises:

means for detecting that the transmit FIFO buffer has space less than or equal to twenty-eight columns of data when the non-standard transport gap is twenty-seven columns of data in size.